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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,078	09/23/2003	Jack Steenstra	030231	6292
23696 7590 06/15/2007 QUALCOMM INCORPORATED 5775 MOREHOUSE DR. SAN DIEGO, CA 92121			EXAMINER WEST, LEWIS G	
			ART UNIT 2618	PAPER NUMBER
			NOTIFICATION DATE 06/15/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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**Office Action Summary**

Application No.

10/670,078

Applicant(s)

STEENSTRA ET AL.

Examiner

Lewis G. West

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10, 21, 22 and 34-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 40 and 44 is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-10, 21, 22 and 34-39 is/are rejected.
- 7) ☒ Claim(s) 4, 5 and 41-43 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Arguments***

Applicant's arguments filed March 26, 2007 have been fully considered but they are not persuasive.

Daly clearly discloses connecting any two devices containing Modems. Sonoda shows a PDA with a modem. Therefore two Modems, as the ones in Sonoda, can clearly and absolutely be connected using the connection of Sonoda. Any two digital devices may be connected per Sonoda, and given that one could be a PDA, anyone of ordinary skill in the art would clearly realize that two digital devices could be PDAs.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 6-10 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daly (US 6,190,190) in view of Sonoda (US 6,181,782).

Regarding claim 1, Daly discloses an apparatus for use in a first device to receive digital data non-wirelessly from a second device and to transmit digital data non-wirelessly to the second device the apparatus comprising a single jack configured to receive analog signals encoded with the digital data from the second device and to transmit analog signals encoded with digital data to the second device; and a second conversion unit coupled to the single jack and configured to recover the digital data from the analog signal received from the second device (Col 3-4, Figures 5-6), but does not

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expressly disclose the type of digital devices. Sonoda discloses a PDA (100) using a modem (17) for communicating digitally encoded analog signal. (Col. 3 line 15-62)

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention that the devices of Daly may be PDAs, PDAs being digital devices commonly used for business and personal use for storing data that may need to be transferred to another party, sometimes in the absence of a PC.

Regarding claim 2, the combination of Daly and Sonoda discloses the apparatus of claim 1, further comprising: a non-wireless communication device configured to couple with the jack, the non-wireless communication device configured to carry the analog signals encoded with digital data to the first device using the jack. (Col. 3 line 15-62)

Regarding claim 3, the combination of Daly and Sonoda discloses the apparatus of claim 2, wherein the non-wireless communication device comprises: a non-wireless medium having a first end and a second end; a first plug coupled to said first end and configured to couple to the jack; and a second plug coupled to said second end and configured to couple to a jack of the second device. (Daly figures 5-6)

Regarding claim 6, Daly discloses a method for use in a first device to receive digital data non-wirelessly from a second device and to transmit digital data non-wirelessly to the second device, the method comprising: receiving analog signals encoded with the digital data from the second device using a single jack; and recovering the digital data from the analog signals received from the second device; encoding digital data in for analog signals; and transmitting the analog signals encoded with digital data to the

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second device using the single jack (Col 3-4, Figures 5-6), but does not expressly disclose the type of digital devices. Sonoda discloses a PDA (100) using a modem (17) for communicating digitally encoded analog signal. (Col. 3 line 15-62) Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention that the devices of Daly may be PDAs, PDAs being digital devices commonly used for business and personal use for storing data that may need to be transferred to another party, sometimes in the absence of a PC.

Regarding claim 7, the combination of Daly and Sonoda discloses the method of claim 6, further comprising: coupling a non-wireless communication device to the jack; and receiving the analog signals through the non-wireless communication device. (Daly, col. 3-4; and Sonoda Col. 3 lines 15-62)

Regarding claim 8, the combination of Daly and Sonoda discloses the method of claim 7, wherein receiving the analog signals comprises: receiving the analog signals as audible analog signals. (Daly, col. 3-4; and Sonoda Col. 3 lines 15-62)

Regarding claim 9, the combination of Daly and Sonoda discloses the method of claim 7, wherein receiving the analog signals comprises: receiving the analog signals electronically. (Daly, col. 3-4; and Sonoda Col. 3 lines 15-62)

Regarding claim 10, the combination of Daly and Sonoda discloses the method of claim 6, further comprising: receiving perceptible sound using the jack. (Daly, col. 3-4; and Sonoda Col. 3 lines 15-62)

Regarding claim 21, Daly discloses an apparatus for use in a first device to receive digital data non-wirelessly from a second device and to transmit digital data non-wirelessly to the second device, the method comprising: means for receiving analog

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signals encoded with the digital data from the second device using a single jack; and means for recovering the digital data from the analog signals received from the second device; means for encoding digital data in for analog signals; and means for transmitting the analog signals encoded with digital data to the second device using the single jack.

(Col 3-4, Figures 5-6), but does not expressly disclose the type of digital devices. Sonoda discloses a PDA (100) using a modem (17) for communicating digitally encoded analog signal. (Col. 3 line 15-62) Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention that the devices of Daly may be PDAs, PDAs being digital devices commonly used for business and personal use for storing data that may need to be transferred to another party, sometimes in the absence of a PC.

Regarding claim 22, the combination of Daly and Sonoda discloses a non-wireless means for carrying the analog signals encoded with digital data to the first device using the jack. (Daly, col. 3-4; and Sonoda Col. 3 lines 15-62)

Claims 34-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daly (US 6,190,190) in view of Sonoda (US 6,181,782) further in view of Bannasch et al (US 2001/0055352).

Regarding claim 34, the combination of Daly and Sonoda the apparatus of claim 1, but does not disclose multi-carrier modulation. Bannasch shows modem communications using multi-carrier modulation using tones. (0020-0033) Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use multi-carrier modulation for modulation as multi-carrier modulation is known to

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increase the amount of information sendable over a connection and reduce susceptibility to outside interference or jamming.

Regarding claim 35, the above combination discloses the apparatus of claim 34 further comprising, a sensor configured to detect whether a plug has been coupled to the single jack. (Sonoda, detection section 14)

Regarding claim 36, the combination of Daly and Sonoda the method of claim 6, but does not disclose multi-carrier modulation. Bannasch shows modem communications using multi-carrier modulation using tones. (0020-0033) Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use multi-carrier modulation for modulation as multi-carrier modulation is known to increase the amount of information sendable over a connection and reduce susceptibility to outside interference or jamming.

Regarding claim 37, the above combination discloses the method of claim 36, further comprising: detecting via a sensor, whether a plug has been coupled to the single jack. (Sonoda, detection section 14)

Regarding claim 38, the combination of Daly and Sonoda the method of claim 21, but does not disclose multi-carrier modulation. Bannasch shows modem communications using multi-carrier modulation using tones. (0020-0033) Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use multi-carrier modulation for modulation as multi-carrier modulation is known to increase the amount of information sendable over a connection and reduce susceptibility to outside interference or jamming.

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Regarding claim 39, the above combination discloses the method of claim 38, further comprising: means for detecting, via a sensor, whether a plug has been coupled to the single jack. (Sonoda, detection section 14)

### *Allowable Subject Matter*

Claims 40 and 44 are allowable.

Claims 4, 5 and 41-43 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.



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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis G. West whose telephone number is 571-272-7859.

The examiner can normally be reached on Monday-Friday 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Lewis G. West  
Primary Examiner  
Art Unit 2618